U.S. Department of State
Bureau of Overseas Buildings Operations

STATEMENT OF WORK
FOR

Installation of smart utilities meters for Los Bambues Housing Compound

US Embassy, Bambues Compound
Santo Domingo, Dominican Republic

FEB 2023

U.S. DEPARTMENT OF STATE
US Embassy, Bambues Compound
Santo Domingo, Dominican Republic

1.0 INTRODUCTION

1.1 The United States Department of State (DOS) requires a proposal to supply and install smart water and electricity meters that will allow for accurate readings and real-time data management in 75 residences and 2 common area buildings in Los Bambues Housing Compound. The smart meters will be designed to combine water and electricity readings in one interface, enabling efficient and convenient management of both utilities. It also includes start-up, commissioning and training on the smart meters. The supply and installation of the smart meters will be coordinated with the Facilities Management section of the US Embassy.

1.2 The Contracting Officer's Representative (COR) point of contact for matters related to this SOW is as follows:

U.S. Embassy Santo Domingo
Juan R. Báez
BAS Engineer & Mechanical Supervisor
OBO/CFSM/FAC/PS
(o) 809-368-7609
(m) 829-257-7770
(e) BaezJR@state.gov

1.3 A pre-bid walk-thru will be coordinated with invited bidders by GSO Procurement, the COR and the Facility Manager (FM). The equipment supplies and installation schedule, along with other miscellaneous project specifics will be reviewed during the walk-thru.

2.0 GENERAL REQUIREMENTS

2.1 *Basic Work Summary*. The Contractor shall provide the following:

a. Provide and install a Remote Water and Electricity Smart Metering Package System EKM-Omnimeter Pulse UL v.4 or similar the following characteristics:

- Nominal Voltage Ranges:
  - 120V to 240V, 2-wire, Single-phase, One Line and Neutral
  - 120/208 to 240V, 3-wire, Single-phase, 2 Lines and Neutral
  - 120V, 3-wire, 3-phase, 3 Lines, No Neutral
  - 120/208 to 240V, 4-wire, 3-phase, 3 Lines and Neutral
- Range of allowable environmental conditions: Pollution Degree 2, Measurement Category III, Altitude rating 2000 meters max. Maximum, Temperature Range: -30ºC to 70ºC. Tamper Detection Class 1.
- The equipment is protected throughout by double insulation as indicated by this symbol: ⧈

- Accuracy Class 0.5
- Rated Frequency: 50Hz/60Hz
- Red LED on the meter face flashes 800 times/kWh. 1 flash = 1.25Wh.
- Received California Type Approval for revenue grade metering
- Certified to meet ANSI C12.1 and C12.20 standards
- UL and cUL Listed

b. Provide and install a Remote Water and Electricity Smart Metering Package System 1.0" Water Meter - SPWM-100-NSF or similar the following characteristics:

- 1.0" water flow meter for measuring water flow in cubic feet
- ISO 4064 Standard Class B
- AWWA C708
- With pulse-output communication for remote reading.
- No power source required.
- NSF/ANSI/CAN 61 certified
- NTEP Certified
- Material: Stainless Steel 304
- Maximum operating pressure: ≤1MPa = ≤150 PSI
- Normal flow range: 24–401 ft^3/hr, 3–50 GPM
- 1.0 Inch NPT male threads
- Use in conjunction with our pulse counter to see a digital display of the total pulse counts

c. The contractor will supply 78 smart water and electricity meters with a combined water and electricity reading system

d. The meters should be communicating wirelessly using a ZigBee protocol or similar, allowing for easy installation and integration with the central terminal.

e. The meters should be equipped with a secure and reliable connection to the central terminal to ensure accurate data collection and analysis.

f. Smart meter should remote access capabilities through the internet and local area network (LAN).

g. Contractor will supply a computer for the central terminal interface in the site installation.

h. The contractor will be responsible for the installation of the smart water and electricity meters in 75 residences and 3 common area buildings.

i. The Integration of both water and electricity readings into a single interface for each household.

2.2 *Location.* The services shall take place at the Bambues housing Compound of the

United States in Santo Domingo, Dominican Republic, Ave. República de Colombia 57, Altos de Arroyo Hondo, Santo Domingo, Dominican Republic.

2.3 *Tools and Equipment*. The Contractor is responsible for bringing all needed tools, including laptops, software and any specialized equipment to the Work site.

2.4 *Safety*. The Contractor is responsible for the safety of for his/her employees, and for conduct of the work in a manner that prioritizes the safety of Embassy residents, employees, and visitors. The contractor will also ensure that the installation is in accordance with all relevant safety regulations and standards.

2.5 *Damage.* Protect furniture, furnishings, carpets, and any exterior and interior finishes from damage. Damage caused by the Contractor to architectural and finishes will be returned to original condition by the Contractor.

2.6 *Interruptions of Service*. The Contractor shall maintain existing utilities in service to the maximum extent possible and coordinate interruptions of any utility services in advance with the Contracting officer representative (COR).

2.7 *Drawing, Specifications and O&M Manual Files.* If needed for reference, available existing design/construction documentation, including Drawings, Specifications and O&M Manuals of the installed meters shall be shared with the Contractor onsite.

2.8 *Timeline.* The project is expected to take 90 days. The contractor will provide regular updates on the progress of the project to the COR.

2.9 *Shipping*. The Contractor is responsible for shipping, delivery, and storage of all tools, materials, and equipment to the Work site.

2.10 *Submittals.* The contractor shall provide submittals for all new equipment, materials, and chemicals, along with any sketch or drawing needed for installation. These documents must be presented to the COR in both paper and electronic format.

2.11 *Warranty.* The contractor shall provide warranties on all equipment, materials, and workmanship.

3.0 SCOPE OF WORK

3.1 Provide qualified technicians, tools and materials necessary to perform the requested supply and start-up of the smart water and electricity meters in the Bambues housing Compound. It is required that the company is a current engineering and services provider of smart metering system integration, not only an equipment vendor.

3.2 Contractor shall perform the following procedure in accordance with the best practices standards related to metering devices combining technology (IoT):

Pre-installation Preparation

The contractor must review the relevant safety regulations and standards for installation of smart water and electricity meters. The contractor must also review

the manufacturer manual for the smart water and electricity meters to be installed and gather the necessary tools and equipment required for installation.

Access to the Residence

The contractor must obtain previous approved access to the residence where the smart water and electricity meters will be installed. The contractor must then review the installation site to determine the best location for the smart meter.

Removal of the Old Meter

The contractor must disconnect the old meter and remove it from its location. The contractor must then clean the surface where the new smart meter will be installed.

Installation of the New Smart Water and Electricity Meter

The contractor must mount the new smart water and electricity meter to the surface, connect the power supply to the new meter, and connect the water and electricity cables to the new meter.

Configuration of the Smart Meter

The contractor must configure the smart meter to connect to the central terminal and test the communication between the smart meter and the central terminal.

Staff Training

The contractor must provide the Embassy staff with an overview of the new smart water and electricity meter and demonstrate the operation of the meter and how to access the data through the central terminal and remotely.

Final Inspection and Testing

The contractor must perform a final inspection of the smart meter installation and test the communication between each smart meter, the central terminal and remote access to ensure accurate data collection and analysis.

Documentation and Record Keeping

The contractor must record the installation of the smart water and electricity meter in the manufacturer's manual and document the installation to be delivered to the COR at the of the project as a record.

Ongoing Support and warranties

The contractor must provide ongoing support and technical assistance to the Embassy staff as needed for 2 years after project conclusion.

3.5 The Contractor is responsible for coordination and supervision of all activities under this SOW. The Contractor shall designate a representative who will be responsible for managing the required services described in this SOW, including delegating requests along with any instruction required, and ensuring smooth and effective operations of Contractor personnel and equipment at all times.

4.0 QUALITY ASSURANCE AND SURVEILLANCE PLAN (QASP)

The QASP provides a method for the FM and/or authorized representative to monitor Contractor performance, advise the Contractor of unsatisfactory performance, and notify the Contracting Officer of continued unsatisfactory performance. The Contractor, not the Government, is responsible for management and quality control to meet the terms of this SOW. The role of the Government is to monitor quality to ensure that service standards are achieved. This plan defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable defect rates. The Contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services.

Performance Objective	Scope of Work	Performance Threshold
Services. Supply smart water and electricity meters and start-up, commissioning and training services for Embassy staff.	3.1 – 3.5	All 78 smart water and electricity meters are installed and operational. No more than one (1) customer complaint is received in the project. No Embassy buildings or properties are damaged.